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#### **ABSTRACT**

The history of technology can be approached not only as a chronology of machine development and a study of artifacts, but also as a study of economic and social development. Although the emphasis in this document is on general histories of technology in the English language, many of the sources listed could be useful in compiling the histories of individual branches of technology. This guide to the literature on the history of technology in the collections of the Library of Congress is not necessarily intended to be a comprehensive bibliography. It is designed to provide the reader with a set of resources that can be used to focus on the topic. The document lists the subject headings used by the Library of Congress in cataloging information on the history of technology. It ziso contains citations of materials categorized as: (1) brief introductions; (2) basic texts; (3) additional titles; (4) handbooks and encyclopedias; (5) other bibliographies; (6) conference proceedings; (7) government publications; (8) abstracting and indexing services; (9) journal articles; (10) technical reports; and (11) additional sources of information. (TW)



# LC Science Tracer Bullet

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THE HISTORY OF TECHNOLOGY Compiled by Diana Niskern

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SCOPE: The history of technology can be approached not only as a chronology of machine development and a study of artifacts, but also as a study of economic and social development. Although the emphasis in this guide is on general histories of technology in the English language, many of the sources listed will be useful in compiling the histories of individual branches of technology. Not intended to be a comprehensive bibliography, this compilation is designed—as the name of the series implies—to put the reader "on target." Related Tracer Bullet titles include Science and Technology in 18th Century America, Inventions and Inventors, and History of American Agriculture.

# INTRODUCTIONS TO THE TOPIC

Buchanan, Robert A. The history of technology. <u>In</u> The New Encyclopaedia Britannica. 15th ed. v. 28. Chicago, Encyclopaedia Britannica, c1986. p. 451-483.

AE5.E363 1986

Hall, A. Rupert. Technology. <u>In</u> The Encyclopedia Americana. International ed. v. 26. Danbury, Conn., Grolier, cl986. p. 357-378.

AE5.E333 1986

Pursell, Carroll W., <u>Jr.</u> History of technology. <u>In</u> A Guide to the culture of science, technology, and medicine. General editor, Paul T. Durbin. New York, Free Press, 1984. p. 70-120, 670-671.

Q158.5.G84 1984

Originally published in 1980; reissued with a bibliographic update in 1984.

SUBJECT HEADINGS used by the Library of Congress, under which books on the history of technology can be located in most card, book, and online catalogs, include the following:

TECHNOLOGY--HISTORY (Highly relevant)

Note: for geographical breakdowns of this copic, it is necessary to search both TECHNOLOGY--geographic area--HISTORY and TECH-NOLOGY--HISTORY--geographic area.

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ENGINEERING--HISTORY (Relevant)

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INDUSTRIAL ARCHAEOLOGY (Relevant)
INDUSTRIAL ARTS-HISTORY (Relevant)
INDUSTRY-HISTORY (Relevant)

### BASIC TEXTS

Daumas, Maurice, ed. A history of technology & invention: progress through the ages. Translated by Eileen B. Hennessy. New York, Crown Publishers, 1970, c1969- T15.D2613\*

Translation of <u>Histoire generale des techniques</u>. Includes bibliographies.

v. 1. The origins of technological civilization.—v. 2. The first stages of mechanization.—v. 3. The expansion of mechanization, 1725-1860.—

Derry, Thomas Kingston, and Trevor I. Williams. A short history of technology from the earliest times to A.D. 1900. New York, Oxford University Press, 1961, c1960. 782 p. T15.D4 1961\* Bibliography: p. 750-758.

The History of techniques. New York, Gordon and Breach Science Publishers, c1986. 2 v. (1410 p.) T15.H5713 1986\*

Translation of Histoire des techniques.

Bibliography: p. 1187-1242.

v. 1. Techniques and civilizations, written and edited by Bertrand Gille--v. 2. Techniques and sciences, edited by Bertrand Gille; written by André Fel and others.

Singer, Charles Joseph, <u>and others, eds</u>. A history of technology.
Oxford, Clarendon Press, 1954-84. 8 v. T15.S53\*

Volumes 6-7 edited by Trevor I. Williams.

Includes bibliographies.

v. 1. From early times to fall of ancient empires.—v. 2. The Mediterranean civilizations and the Middle Ages, c. 700 B.C. to c. 1500 A.D.—v. 3. From the Renaissance to the industrial revolution, c. 1500-c. 1750.—v. 4. The industrial revolution, c. 1750 to c. 1850.—v. 5. The late nineteenth century, c. 1850 to c. 1900.—v. 6-7. The twentieth century, c. 1900 to c. 1950.—v. 8. Consolidated indexes, compiled by Richard Raper.

Technology in Western civilization. Edited by Melvin Kranzberg and Carroll W. Pursell, Jr. New York, Oxford University Press, 1967. 2 v. T15.T43\*

Includes bibliographies.

v. 1. The emergence of modern industrial society, earliest times to 1900.--v. 2. Technology in the twentieth century.

<sup>\*</sup>Available in reference collection, Science Reading Room



### TITLES DEALING WITH PARTICULAR PERIODS OR COUNTRIES

- Bishop, John Leander. A history of American manufactures from 1608 to 1860. 3d ed., rev. and enl. New York, A. M. Kelly, 1966. 3 v. (Library of early American business and industry, 1) TS23.B72 1966 3d ed. first published in 1868.

  Bibliographical footnotes.
- Forbes, Robert James. Studies in ancient technology. Leiden, E. J. Brill, 1964- T15.F729\*

  Label mounted on t.p. of v. l has imprint: W.S. Heinman, New York. Vol. 1, 3, 5, 7: 2d ed.; v. 2, 4, 6, 9: 2d rev. ed.

  Includes bibliographies.
- Gille, Bertrand. Engineers of the Renaissance. Cambridge, Mass., MIT Press, 1966. 254 p. TA18.G5413 1966

  Translated from Les ingénieurs de la Renaissance, published by Hermann, Paris, in 1964.
- Hindle, Brooke, and Steven Lubar. Engines of change: the American industrial revolution, 1790-1860. Washington, Smithsonian Institution Press, c1986. 309 p. HC105.H66 1986 Bibliography: p. 285-298.
- Hodges, Henry. Technology in the ancient world. With drawings by Judith Newcomer. New York, Knopf, 1970. 287 p. T16.H63 1970b Includes bibliographical references.
- Sinclair, Bruce, Norman R. Ball, and James O. Peterson, comps. Let us be honest and modest: technology and society in Canadian history.

  Toronto, Oxford University Press, 1974. 309 p. T23.A1S57

  Bibliography: p. 307-309.
- White, K. D. Greek and Roman technology. Ithaca, N.Y., Cornell University Press, 1984. 272 p. T16.W45 1984
  Bibliography: p. 241-255.
- White, Lynn Townsend, <u>Jr. Medieval religion and technology: collected essays.</u> Berkeley, <u>University of California Press</u>, c1978. 360 p. (Publications of the Center for Medieval and Renaissance Studies, UCLA, 13)

  T17.W47\*
  Includes bibliographical references.
- Williams, Trevor Illtyd. A short history of twentieth-century technology c. 1900-c. 1950. Oxford (Oxfordshire), Clarendon Press; New York, Oxford University Press, 1982. 411 p. T20.W55 1982

  Sequel to A short history of technology from the earliest times to A.D. 1900, by T. K. Derry and Trevor I. Williams.

  Includes bibliographies.



### SPECIALIZED TITLES DEALING WITH PARTICULAR TOPICS

- American Public Works Association. History of public works in the United States, 1776-1976. Editor, Ellis L. Armstrong; associate editors, Michael C. Robinson, Suellen M. Hoy. Chicago, The Association, c1976. 736 p. HD3885.A63 1976 Includes bibliographies.
- Clark, Victor Selden. History of manufactures in the United States.
  1929 ed. New York, Published for the Carnegie Institution of
  Washington by the McGraw-Hill Book Co., 1929. 3 v. HD9725.C52
- Condit, Carl W. American building: materials and techniques from the first colonial settlements to the present. 2d ed. Chicago, University of Chicago Press, 1982. 329 p., 88 p. of plates (The Chicago history of American civilization, CHAC 25)

  Bibliography: p. 295-303.
- Cowan, Ruth Schwartz. More work for mother: the ironies of household technology from the open hearth to the microwave. New York, Basic Books, c1983. 257 p. TX23.C64 1983 Bibliography: p. 220-233.
- Hounshell, David A. From the American system to mass production, 1800-1932: the development of manufacturing technology in the United States. Baltimore, Johns Hopkins University Press, c1984. 411 p. (Studies in industry and society, 4)

  Bibliography: p. 385-398.
- Hunter, Louis C. A history of industrial power in the United States, 1780-1930. Charlottesville, Published for the Eleutherian Mills-Hagley Foundation by the University Press of Virginia, 1979-1985. 2 v. HD1694.A5H76\*
  - Vol. 2 has imprint: Published for the Hagley Museum and Library. Includes bibliographical references.
  - v. 1. Waterpower in the century of the steam engine. -- v. 2. Steam power.
- Material culture of the wooden age. Edited by Brooke Hindle. Tarry-town, N.Y., Sleepy Hollow Press, c1981. 394 p. TA666.M32 Bibliography: p. 371-373.
- Military enterprise and technological change: perspectives on the American experience. Edited by Merritt Roe Smith. Cambridge, Mass., MIT Press, c1985. 391 p. UF533.M55 1985
- Petulla, Joseph M. American environmental history: the exploitation and conservation of natural resources. San Francisco, Calif., Boyd & Fraser Pub. Co., c1977. 399 p. HC103.7.P48
  Includes bibliographies.
- Ryder, John Douglas, and Donald G. Fink. Engineers & electrons: a century of electrical progress. New York, IEEE Press, c1984. 251 p. Includes bibliographies. TK23.R9 1984



- Schlebecker, John T. Whereby we r' ve: a history of American farming, 1607-1972. Ames, Iowa State University Press, 1975. 342 p.
  Bibliography: p. 321-328.
- Smith, Merritt Roe. Harpers Ferry armory and the new technology: the challenge of change. Ithaca, N.Y., Cornell University Press, 1977.

  363 p.

  UF543.H37S63

  Bibliography: p. 349-356.
- Smith, Norman Alfred Fisher. A history of dams. London, P. Davies, 1971. 279 p. TC540.S55
  Bibliography: p. 257-262.
- Strasser, Susan. Never done: a history of American housework. New York, Pantheon Books, cl982. 365 p. TX23.S77 1982 Bibliography: p. 313-316.
- White, John H., <u>Jr</u>. A history of the American locomotive: its development, 1830-1880. New York, Dover Publications, 1979, c1968.

  504 p.

  TJ603.2.w48 1979

  Reprint of the ed. published by Johns Hopkins Press, Baltimore, under title <u>American locomotives</u>.

  Bibliography: p. 489-494.

# DICTIONARIES, GUIDEBOOKS, AND OTHER REFERENCE MATERIALS

- Appleton's dictionary of machines, mechanics, engine-work, and engineering. New ed., with appendix. New York, D. Appleton & Co., 1869. 2 v. T9.A65 1869
- Carter, Ernest Frank. Dictionary of inventions and discoveries. 2d revised ed. London, Muller, 1974. 208 p. T9.C335 1974\*
- Hudson, Kenneth. A guide to the industrial archaeology of Europe.
  Bath, Adams and Dart, 1971. 186 p., 56 plates. T26.AlH8
- Leuschner, Fritz. Treasures of technology in museums of the world.

  Translated from the German by Silvia Furness. Leipzig, Edition
  Leipzig, cl983. 219 p.

  Translation of Kostbarkeiten aus technischen Sammlungen.
- National historic mechanical engineering landmarks. Richard S. Hartenberg, editor. Sponsored by the History and Heritage Committee. New York, American Society of Mechanical Engineers, cl979. 146 p. TJ23.N3
- Sande, Theodore Anton. Industrial archeology: a new look at the American heritage. Brattleboro, Vt., S. Greene Press, c1976.
  152 p. T21.S26
  Bibliography: p. 148.



- The Timetable of technology. Consultants and contributors, G. W. A. Dummer and others. New York, Hearst Books, c1982. 240 p.
  Bibliography: p. 234. T20.T55 1982\*
  Chronological listings, from 1900 through 1981, of significant discoveries and developments in medicine, communications, transport, energy, food technology, and other fields.
- United States. Congress. The new American state papers: science and technology. Introd. by Nathan Reingold. Wilmington, Del., Scholarly Resources, 1973. 14 v. Q127.U6U485 1973\*

  Includes bibliographical references.

  Partial contents: v. 4-5. Patents.--v. 6-7. Steam engines.-v. 8-10. Telegraphs, military technology.--v. 11-13. Special studies.
- Weitzman, David L. Traces of the past: a field guide to industrial archaeology. New York, Scribner, 1980. 229 p. T37.W44 Bibliography: p. 211-215.
- Westbrook, J. H. Materials: history before 1800. Materials: history since 1800. In Encyclopedia of materials science and engineering. Editor-in-chief, Michael B. Bever. v. 4. Oxford (Oxfordshire), Pergamon; Cambridge, Mass., MIT Press, 1986. p. 2816-2838. TA402.E53 1986\* Includes bibliographies.

### BIBLIOGRAPHIES

- Analytical bibliography of the history of engineering and applied science. In Newcomen Society for the Study of the History of Engineering and Technology, London. Transactions, v. 2, 1921/1922: 141-155; v. 3, 1922/1923: 122-127; v. 4, 1923/1924: 135-140; v. 5, 1924/1925: 100-124; v. 6, 1925/1926: 203-221; v. 7, 1926/1927: 132-145; v. 8, 1927/1928: 161-183; v. 9, 1928/1929: 113-133; v. 10, 1929/1930: 121-134; v. 11, 1930/1931: 171-187; v. 12, 1931/1932: 112-118; v. 13, 1932/1933: 187-195; v. 14, 1933/1934: 213-225; v. 15, 1934/1935: 233-248; v. 16, 1935/1936: 161-178; v. 17, 1936/1937: 221-231; v. 18, 1937/1938: 281-294; v. 19, 1938/1939: 269-279; v. 20, 1939/1940: 161-173; v. 21, 1940/1941: 158-173; v. 22, 1941/1942: 188-203; v. 25, 1945/1947: 211-221.
- Current bibliography in the history of technology. Technology and culture, v. 5, winter 1964: 138-'48; v. 6, spring 1965: 346-374; v. 7, spring 1966: 268-300; in April issues 1967- T1.T27



- Cutcliffe, Stephen H., Judith A. Mistichelli, and Christine M.
  Roysdon. Technology and values in American civilization: a guide
  to information sources. Detroit, Mich., Gale Research Co., cl980.
  704 p. (Gale information guide library. American studies information guide series, v. 9)
  Z5579.C87\*
- Ferguson, Eugene S. Bibliography of the history of technology. Cambridge, Mass., Society for the History of Technology, 1968. 347 p. (Society for the History of Technology. Monograph series, v. 5)

  Z7914.H5F4\*
- Greenwood, John. Industrial archaeology in Western Europe: a bibliography. Industrial archaeology review, v. 6, spring 1982: 125-139.

  Excludes the British Isles. T37.153
- Isis cumulative bibliography; a bibliography of the history of science formed from Isis critical bibliographies 1-90, 1913-65. Edited by Magda Whitrow. Chairman of editorial committee: I. Bernard Cohen. London, Mansell, in conjunction with the History of Science Society, 1971-1984. 6 v. Z7405.H6I2\*
  - v. 1. pt. 1. Personalities, A-J.--v. 2. pt. 1. Personalities, K-Z. pt. 2. Institutions.--v. 3. Subjects.--v. 4. Civilizations and periods, prehistory to Middle Ages.--v. 5. Civilizations and periods, 15th to 19th centuries.--v. 6. Author index.
- Isis cumulative bibliography 1966-1975: a bibliography of the history of science formed from Isis critical bibliographies 91-100 indexing literature published from 1965 through 1974. Edited by John Nev. London, Mansell in conjunction with the History of Science Society, 1980- Z7405.HúI2 Suppl.\*

Supplement to <u>Isis cumulative bibliography ... 1913-65.</u>
v. l. Personalities and institutions.--v. 2. Subjects, periods, and civilizations.--

The critical bibliography is published annually in a separate issue of  $\underline{\mathbf{Isis}}$ .

- Kren, Claudia. Medieval science and technology: a selected, annotated bibliography. New York, Garland Pub., 1985. 369 p. (Bibliog-raphies of the history of science and technology, v. 11) (Garland reference library of the humanities, v. 494) 27405. H6K74 1985
- Multhauf, Robert P. The history of chemical technology: an annotated bibliography. New York, Garland Pub., 1984. 299 p. (Bibliographies of the history of science and technology, v. 5) (Garland reference library of the humanities, v. 348) Z7914.C4M84 1984
- Poole, Mary Elizabeth, comp. "History" references from the Industrial arts index, 1913-1957. Raleigh, D. H. Hill Library, North Carolina State College, 1958. 119 leaves. Z7914.H5P66 1958a Photocopy of typescript. Ann Arbor, Mich., Xerox University Microfilms, 1974.



- Rink, Evald. Technical Americana: a checklist of technical publications printed before 1831. Sponsored by the Eleutherian Mills Historical Library. Millwood, N.Y., Kraus International Publications, c1981. 776 p. Z7912.R56\*
- Rothenberg, Marc. The history of science and technology in the United States: a critical and selective bibliography. New York, Garland Pub., 1982. 242 p. (Bibliographies of the history of science and technology, v. 2) (Garland reference library of the humanities, v. 308)

  Z7405.H6R67 1982\*
- Stapleton, Darwin H. The history of civil engineering since 1600: an annotated bibliography. With the assistance of Roger L. Shumaker. New York, Garland Pub., 1986. 232 p. (Bibliograph.es of the history of science and technology, v. 14) (Garland reference library of the humanities, v. 519)

  Z5851.884 1986

### CONFERENCE PROCEEDINGS

Bridge to the future: a centennial celebration of the Brooklyn Bridge. Edited by Margaret Latimer, Brooke Hindle, and Melvin Kranzberg. New York, New York Academy of Sciences, 1984. 355 p. (Annals of the New York Academy of Sciences, v. 424) Q11.N5 v. 424

"Result of a symposium entitled Bridge to the future, held on May 18-20, 1983, and sponsored by Brooklyn Rediscovery, a program of the Brooklyn Educational and Cultural Alliance, and the New York Academy of Sciences."

Includes bibliographies.

Symposium ICOHTEC, 10th, Smolenice, Czechoslovakia, 1982. Sources for the history of technology: national comparisons (conference papers). Tenth Symposium ICOHTEC, Smolenice, 1982, Czechoslovakia. Editor, Lubos Novy. Praha, Institute of Czechoslovak and General History CSAS, 1983. 541 p. (Acta historiae rerum naturalium nec non technicarum. Special issue, 17. Czechoslovak studies in the history of science. Special issue, 17)

English, French, German, and Russian.
Includes bibliographical references.

Symposium on the History and Philosophy of Technology, Chicago, 1973.

The history and philosophy of technology. Edited by George Bugliarello and Dean B. Doner. Urbana, University of Illinois Press, c1979. 384 p.

T15.S96 1973

Sponsored by the College of Engineering and the College of Liberal Arts and Sciences of the University of Illinois at Chicago Circle.

Includes bibliographical references.



# GOVERNMENT PUBLICATIONS

- Historic America: buildings, structures, and sites. Recorded by the Historic American Buildings Survey and the Historic American Engineering Record; checklist compiled by Alicia Stamm; essays edited by C. Ford Peatross. Washington, Library of Congress, 1983. 708 p. NA705.H53 1983 Includes bibliographical references.
- Mayr, Otto. Feedback mechanisms in the historical collections of the National Museum of History and Technology. Washington, Smithsonian Institution Press, 1971. 133 p. (Smithsonian studies in history and technology, no. 12)

  TJ216.M35
  Includes bibliographical references.
- Merzbach, Uta C. Georg Scheutz and the first printing calculator. Washington, Smithsonian Institution Press, 1977. 74 p. (Smithsonian studies in history and technology, no. 36)

  Bibliography: p. 59-72.
- Oliver, Smith Hempstone, and Donald H. Berkebile. Wheels and wheeling; the Smithsonian cycle collection. Washington, Smithsonian Institution Press, 1974. 104 p. (Smithsonian studies in history and technology, no. 24)

  First published in 1953 under title Catalog of the cycle collection of the Division of Engineering, United States National Museum.

  Bibliography: p. 103-104.
- United States. Museum of History and Technology. Contributions.

  Papers 1-72. Washington, Smithsonian Institution, 1959-68. (United States. National Museum. Bulletin)

  T7.U627
- Vogel, Robert M. Building Brooklyn Bridge: the design and construction, 1867-1883. Washington, National Museum of American History, Smithsonian Institution, 1983. 28 p. TG25.N53V63 1983
- Worthington, William E., <u>Jr.</u> Beyond the city lights: American domestic gas lighting systems. Washington, Smithsonian Institution, 1985.

  23 p. TH7910.W67 1985

  "An exhibit at the National Museum of American History, October 17, 1985-April 20, 1986."

ABSTRACTING AND INDEXING SERVICES that index relevant journal articles and other literature are listed below. Some suggested terms are given as aids in searching.

America, History and Life (1964-) Z1236.A48
See: Technology



Applied Science & Technology Index (1913-) Z7913.17\*

See: Technology--History Engineering--History

History

Subdivision History under subject headings of interest

Engineering Index (1884-) Z5851.E62\*

See especially volumes through 1957 for entries under Engineering History

General Science Index (1978-) Z7401.G46\*

See: Technology--History

History

Subdivision History under subject headings of interest

Physics Abstracts (1898-) Q1.S3\* and QC1.P46\*

See: History

Readers' Guide to Periodical Literature (1900-) AI3.R45

See: Technology-History Industrial Archeology Industrial Revolution

Depending on the topic, researchers may need to use more specialized abstracting and indexing services such as those listed below.

Electrical & Electronics Abstracts (1898-) Z5833.E37\*

See: History

International Aerospace Abstracts (1961-) TL500.I57\*

Sec: Histories

Metals Abstracts Index (1968-) TN1.M51532\*

See: Historical Metallurgy

JOURNALS that often contain articles on the history of technology are

American Heritage of Invention & Technology (uncataloged)

The Chronicle of the Early American Industries Association, Inc. T1.E2

History and Technology (uncataloged)

History of Technology T14.7.H57

Published annually

IA, the Journal of the Society for Industrial Archeology T37.I13

Industrial Archaeology T37.15

Industrial Archaeology Review T37.153

Isis; an International Review Devoted to the History of Science and Its Cultural Influences Q1.17

Note: Consult reference librarian for location of abstracting and indexing services in the Science Reading Room



Newcomen Society for the Study of the History of Engineering and Technology, London. Transactions Tl.N47

Scientific American Tl.S5

Society for Industrial Archeology Newsletter T37.S62

Technology and Culture T1.T27

Official publication of the Society for the History of Technology

### REPRESENTATIVE JOURNAL ARTICLES

- Chiles, James R. The road to radar. American heritage of invention & technology, v. 2, spring 1987: 24-30.
- Cowan, Ruth Schwartz. From Virginia Dare to Virginia Slims: women and technology in American life. Technology and culture, v. 20, Jan. 1979: 51-63.
- Demar, John H. How tinsmiths used their tools. The Chronicle of the Early American Industries Association, Inc., v. 26, Dec. 1973: 49-57.
- Evans, Francis T. Roads, railways, and canals: technical choices in 19th-century Britain. Technology and culture, v. 22, Jan. 1981: 1-34.
- Howard, Robert A. Black powder manufacturing. The Chronicle of the Early American Industries Association, Inc., v. 34, Dec. 1981: 62-66.
- James, J. G. The evolution of iron bridge trusses to 1850. <u>In</u> New-comen Society for the Study of the History of Engineering and Technology, <u>London</u>. Transactions, v. 52, 1980/81: 67-101. Tl.N47
- Lohof, Bruce A. The service station in America: the evolution of a vernacular form. Industrial archaeology, v. 11, May 1974: 1-13.

  T37.15
- Meyer-Thurow, Georg. The industrialization of invention: a case study from the German chemical industry. Isis, v. 73, Sept. 1982: 363-381.

  Q1.17
- Pitts, Eugene, III, and Walter I. Seigal. Fifty years of TV. Audio, v. 65, July 1981: 28-32. TK6540.R17
- Reardon-Anderson, James. Chemical industry in China, 1860-1949. Osiris, 2d ser., v. 2, 1986: 177-224.
- Sleeswyk, André Wegener. Pyramid building as an integrated process. History and technology, v. 2, no. 2, 1985: 203-230.
- Tarr, Joel A., and others. Water and wastes: a retrospective assessment of wastewater technology in the United States, 1800-1932.

  Technology and culture, v. 25, Apr. 1984: 226-263.



TECHNICAL REPORTS and other types of literature are indexed in the following guides:

Government Reports Announcements & Index (1946-) Z7916.G78\*
See: Histories
History

Scientific and Technical Aerospace Reports (1963-) TL500.S35\* See: Histories

SELECTED TECHNICAL REPORTS sold by the National Technical Information Service, Springfield, Virginia 22161, include the following:

- Barnes, Arthur G. History of Patowmack Canal: Matildaville. A discussion of the Patowmack Company, its canal, and Matildaville, George Washington Memorial Parkway, Great Falls, Virginia. Prepared for National Park Service, Denver, CO. Williamsburg, Va., Southside Historical Sites, Inc., Mar. 31, 1978. 160 p.

  PB81-199747\*\*
- Cooper, Patricia A. From hand craft to mass production: men, women and work culture in American cigar factories, 1900-1919. College Park, Md., University of Maryland, 1981. 402 p. PB82-265547\*\*

  "Dissert tion submitted to the Faculty of the Graduate School of the University of Maryland in partial fulfillment of the requirements for the degree of Doctor of Philosophy 1981."
- Dowson, Duncan, and Bernard J. Hamrock. History of ball bearings. Feb. 1981. 84 p. (NASA-TM-81689) N81-18391\*\*
- Govan, Gregory G. The tank builders: a history of early Soviet armor research and development. APO NY 09053, U.S. Army Russian Institute, June 1979. 52 p. AD-A098574\*\*
- Lefferts, H. Leedom, <u>Jr.</u>, <u>and</u> David R. Peifer. Northwest New Jersey: an inventory and history of historic engineering and industry.

  Washington, U.S. Dept. of Interior, National Park Service, 1979.

  337 p. PB84-209493\*\*

SELECTED MATERIALS available in the Science Reading Room pamphlet boxes include

- Brown, M. L. The American arms industry and the industrial revolution. National defense, no. 369, July/Aug. 1981: 41-47.
- Cowan, Ruth Schwartz. Less work for mother? American heritage of invention & technology, v. 2, spring 1987: 57-63.
- Galloway, D. F. Mankind and manufacture. Pt. 1. Retrospect. Chartered mechanical engineer, v. 16, Nov. 1969: 431-437.



<sup>\*\*</sup>Available in microform collection, Science Reading Room

Long Island wind and tide mills; an interim report of a study conducted by the Historic American Engineering Record and the Society for the Preservation of Long Island Antiquities. Washington? U.S. National Park Service, Office of Archeology and Historic Preservation, Historic American Engineering Record, 1976. 19 p.

Uricchio, W. C. The motion picture as industrial archaeology. Industrial archaeology, v. 16, autumn 1981: 233-237.

White, Lynn, <u>Jr. Medieval Europe foresaw planes</u>, cars, submarines. Smithsonian, v. 9, Oct. 1978: 114-123.

### ADDITIONAL SOURCES OF INFORMATION

National Museum of American History Branch Library Smithsonian Institution Libraries Constitution Ave. between 12th and 14th Sts., N.W. Washington, D.C. 20560 Telephone: (202) 357-2036

Newcomen Society of the United States 412 Newcomen Road Exton, Pennsylvania 19341 Telephone: (215) 363-6600

